Commercial and Sport Fishing and Bay Area Wildlife 1850-1990s

The same exploitive sentiment common among merchants and shipping interests regarding the use of Galveston Bay was also held by sportsmen and commercial hunters and fishermen at the turn of the century. The seemingly endless supply of marine life and waterfowl in and around Galveston Bay encouraged excessive harvesting.

Forest McNeir of Smith Point in Chambers County was typical of the small-time predatory commercial hunter just before the turn of the century when few limits regulated the harvest of waterfowl and oysters.

Unfettered Oystering and Bird Hunting 1880s-1915

Forest McNeir, later a successful Houston businessman, was the great-grandson of Cherokee chief Major Ridge who was murdered after being forced to move from Georgia to Oklahoma Territory in the 1830s. Forest lived with his widowed mother at the Smith Point home of his grandmother, Sarah Ridge Paschal Pix, the daughter of Chief Ridge (Henson and Ladd, 1988:65). She was as well-educated as white girls, having attended a special school for Indian girls and also a finishing school, and was married to a Texas lawyer until 1850. But the gold that she had inherited from her father had been squandered by her two husbands, and by 1880, Mrs. Pix had to live off the land and the produce of her ranch. Thus she and her grandsons viewed the wildlife as a means of support, similar to the ancient residents of the Galveston Bay.

About 1886 when he was ten, Forest and his brother sailed their skiff to Red Fish Reef, the nesting ground for thousands of gulls, to gather eggs. They also found many diamond back terrapins, and they caught about ten dozen which they sold for $4.00 per dozen in Galveston. "I never saw any more diamond back terrapins when I got older...the speckled seagull eggs were just a little fishy, but pretty good scrambled" (McNeir, 1956:30).

Always in the need of money, the brothers began oystering in 1893 when Forest was seventeen. Although oyster harvesting regulations had begun and privately owned beds were allowed by the state, McNeir did not mention restrictions in his memoir. Perhaps they were not enforced, or he ignored them. The pair used tongs to harvest their catch, putting them into the 55 barrels on board their sloop. They took their catch to Houston where prices were better than Galveston—$1.25 per barrel. While sailing off of Round Point, a 6-foot-long grandicoy (tarpon) jumped out of the water and struck the boom before it cleared the boat on the other side, leaving "scales as large as a silver dollar" (McNeir, 1956:65, 72).

McNeir began hunting ducks for the Galveston market at an early age and once saw 500 pairs of picked and cleaned ducks thrown overboard in the harbor when headwinds delayed the entrepreneur and the catch spoiled. In 1897 Col. W. L. Moody of Galveston hired the McNeir brothers as guides and men-of-all-work for his duck hunting lodge at Lake Surprise on the north shore of East Bay about six miles from Smith Point. The four-foot-deep lake was full of wild celery and attracted canvasbacks, blacks, and some redheads. "I have seen that lake covered with countless multitudes of ducks ...they completely hid the water...but they will never be seen again. They have vanished...When they rose all at once they shook the air, sounding like the roar of a freight train..."(McNeir, 1956:31, 73-74).

The ducks always arrived the first week in November and Col. Moody gave them several weeks to fatten up before inviting his guests. The McNeir's built twelve blinds about two feet above the water and about 10 feet back from the edges of cane and rushes; the colonel's blind had a rocking chair. They set out over 700 canvasback decoys in "stools" of about 60 each in front of the blinds. The McNeirs called the ducks and also had to shoot birds missed by prominent guests such as Texas Gov. James Hogg or William Jennings Bryan (McNeir, 1956:75, 77-78).

The guests were supposed to shoot canvasbacks, but they shot at anything including the small teals. Ever the businessman, Moody had McNeir cook the teals for the hunters' dinner, explaining to his guests that a canvasback was too large for one person and not large enough for two. The real reason was profit-Moody shipped the canvasbacks to market. After dinner the hired hands packed the canvasbacks in iced barrels, which McNeir loaded onto his sloop to take to Galveston for shipment by railway express to St. Louis, Chicago, and east coast cities (McNeir, 1956:79-80).

One evening during an icy norther, McNeir and a friend shot canvasbacks on their own for 45 minutes killing 192 birds with 300 shells. The next day he went out and picked up 3 dozen big hard-shell turtles that came up for air in the icy water but were too cold to dive back down. He sold them in Galveston for $1.00 per dozen (McNeir, 1956:84.)

The good duck hunting at Lake Surprise ended by 1915. The lake filled with salt water during the 1900 hurricane and again in 1915 which killed the wild celery. Four years later the lake dried up during a long drought and the alligator gars, catfish, eels, snakes, and turtles died while the alligators left for better locations (McNeir, 1956:93).

The McNeir brothers also hunted jacksnipe for market. Between 1895 and 1899 their favorite hunting ground was on Lawrence Island in the Trinity-Old River delta. There were "millions of them," which they sold for $1.00 per dozen with a contract for all that they could kill. The snipe were hard to hit because they flew "like a corkscrew for 25 feet" then leveled off fast. The dead birds were also hard to find, and McNeir tried to shoot them so they fell with the white breast up! "It wasn't fun for us, it was a living."

They camped out for a week to get sufficient birds and put the catch on ice every night until they had maybe 1,400 snipe. When he was in his seventies (1950s), McNeir wrote "the great marsh where I hunted as a boy has been fenced and posted, and today is dotted with oil wells...(McNeir, 1956:93-96)."

Commercial Fishing and the Need for Regulation, 1850-1913

As early as the 1850s, live turtles were shipped from Galveston Bay to New York before the days of local canning plants or mechanically-made ice. The species disappeared in the 1890s when over harvesting and two severe freezes combined to depopulate local waters (Hildebrand, 1981:2 quoted in Sullivan, 1988 as excerpted in Few, 1991:70-71).

The method of taking fish in the bay was catching the most possible and culling what you might not want. During the second half of the nineteenth century, commercial fishermen, and probably some individuals, used drag seines, set nets, baskets and pots, weirs (brushy dams), and fykes (long bag net) to catch flounder, drum, redfish, sheepshead, and also the less desirable fish in the bay. Rakes and tongs were used to gather oysters (Hofstetter, 1977:62 quoted in Sullivan, 1988 as excerpted in Few, 1991:72).

There was no effort at regulation until 1879, and then it was in favor of commercial fishing interests. Between 1879 and 1913 the Texas legislature passed sixteen laws establishing and protecting the private ownership of oysterbeds in the bays. The first act created private leases and prohibited oystering on public reefs from May to September. By 1887 the state extended protection to young fry, crabs, shrimp, and oysters and also established control over fisheries and specific commercially important species. The regulations set the tone for future management. The state legislature created the office of the Fish and Oyster Commissioner in 1895 to be appointed by the governor, and at the same time instituted a mandatory licensing program to protect fish, turtles, terrapin, oysterbeds and reefs. Unfortunately, few reports exist about the enforcement or the success of these early regulations (Sullivan, 1988 as excerpted in Few, 1991:72-73).

The man who became the first Texas Fish Commissioner, C. H. Stevenson, surveyed the situation along the Texas coast even earlier. In 1893 he reported the condition of Texas fisheries to the U. S. Fish Commission. Bay seining for menhaden (used for oil and fertilizer) was the primary fishing industry in Texas with oystering close behind. Fishing was a growing industry because of the availability of mechanical ice and rail transportation. Stevenson thought that the efforts to restrict the use of seines during the summer months as proposed by sport fishermen would cause economic distress to both commercial fishermen and the towns dependent on their income. He was, however, committed to building fish hatcheries in Texas for carp, rainbow trout, California salmon, and shad, and in 1890 planted 745 lobsters in the Gulf near Galveston, the latter experiment proved unsuccessful (Stanley, 1989:n.p. Chapter 7[1-2]).

Oyster and Mudshell Industries

Oystering and the mudshell industries are part of the history of the utilization of Galveston Bay, and while the marine scientists can argue about cause and effect, this historical overview traces only the major developments.

Oysters need clean, shallow, diluted salt water. Galveston's bays were conducive (though some say not perfect) to growth as can be attested by Red Fish Reef, the bane of the early navigators. Other large oyster beds stretched from Galveston Island across West Bay towards the mainland and also in the shallows north of Bolivar Peninsula.

By 1879 there was sufficient interest in the oyster beds by organized fishermen that the state surveyed the bay and leased certain reefs to private lessees. Other oyster beds were recognized as public. In a first step toward conservation, the state limited tonging to the winter months and banned harvesting from May through September (Sullivan, 1988 as excerpted in Few, 1991:72). By the 1890s, 153 acres in Galveston Bay were under lease and 2,000 acres in the early 1900s (Hofsetter, 1977 quoted in Sullivan, 1988 as excerpted in Few, 1991:72-73).

In 1885 there was a seasonal oyster industry in Galveston employing several hundred men. Most worked on small boats and used heavy tongs to remove the oysters from the bottom; later broad, four-foot-wide rakes were dragged across the beds and required a winch to deposit the load of shells on the deck. Other men were employed as oyster-openers for restaurants while others packed the unopened shells in ice for shipment by rail and steamer to distant markets (McComb, 1986:18).

Texas oyster production reached approximately 200,000 barrels (about 350,000 gallons) per year by 1904. These figures were considered a high-water mark and the beds began to decline, some covered with silt (Webb, 1952:2:144). The leasing of oyster reefs in Galveston Bay dropped to a low of 66 acres in the 1940s but rose slowly thereafter. While tonging oysters remained the common harvest method until the 1960s, the dredge was introduced in Texas waters in 1913. At first power dredging (a skiff with an outboard motor equipped to pull and hoist a dredge) was prohibited in shallow bay waters less than six feet deep, but in 1963 that was rescinded (Hofstetter, 1977:62 cited in Stanley, 1989:n.p. Chapter 7[11]).

Besides over harvesting and floods, another cause of the decline in the oyster industry at the turn of the century was the increasing demand for mud-shell (dredged oyster shell) for building material. While exploiting ancient oysterbeds, often buried under layers of mud, the dredges sometimes cut through live reefs and also stirred mud, making the water turbid (Webb, 1952:2:144). After the convenient shell piles along the shores-the old Indian middens—disappeared, having been hauled away to shell streets and walkways, entrepreneurs learned how to dredge through oyster shell reefs in Galveston

Bay. Shell beds were usually found in layers six to ten feet deep under the bottom mud; a few were as deep as eighty feet. As technology improved, huge dredges could easily reach reefs twenty-five feet below the bottom, bringing up the muddy shell. There was a ready market for shell which was used as a substitute for gravel on roads and railroad beds and was also used in producing lime and even chicken feed (McComb, 1977:18).

Prices for shell ranged from fifty cents to one dollar per cubic yard and because the beds belonged to the state, the Texas Game, Fish, and Oyster Commission levied a tax of five cents a cubic yard on the companies recovering the shell in Texas bays. During some years before 1950 as much as 20 million cubic yards of shell were dredged from Texas bays (Webb, 1952:2:144). By 1956 the Texas shell beds were running out, yielding less shell, and for the next decade, production averaged only 11,700,000 cubic yards annually. The main consumers were two Portland cement plants—one near Houston and the other near Corpus Christi. Conflicts arose between shell extractors and commercial oystermen and sports fishermen which led to more widespread concern for protecting the oyster beds (Branda, 1976:3:574-575).

Human waste and industrial pollution also affected the oyster beds by the 1940s, posing a health problem although not harming the oysters. Scientific research concerning sewage contamination began in the 1950s, and led to the state health department closing certain sections of the bay—including Offatt's Bayou—to oystering (Newkirk, 1987).

Nevertheless, oyster production resurged in the mid-1950s and did well for twenty years. A decline in the late 1970s lasted until the early 1980s when an all-time high of 7 million pounds were harvested in 1983 (Stanley, 1989:n.p. Chapter 7[10]).

Natural phenomena, particularly heavy rains, often cause trouble for oystermen. The unusually heavy rains in the fall of 1986 caused overflows that carried sewage into the Galveston Bay system. Oystering was closed down in the entire system including West Bay and remained closed until February, 1987. West Bay, however, was off-limits most of the 1987 season (Sullivan, 1988 as excerpted in Few, 1991:89-90).

Shrimping in Galveston Bay

Shrimp spawn offshore and the young travel into the less salty and sheltered bays to mature. During the fall and early winter, the adult shrimp return to the Gulf and repeat the process if not harvested (Webb, 1952:2:145). In the early days catching shrimp in castnets or in drag seines was usually a by-product of finfishing, although occasionally one could net 6-7-inch long shrimp in the shallows as described by Audubon in 1837 and the English visitor in 1841 (see chapter 2).

Shrimping in the bay was not considered profitable until the 1920s because few markets existed. Since then, it has become a recognized industry in the Galveston area (Sullivan,

1988 as excerpted in Few, 1991:73). Motorized boats pull a trawl, a long net suspended from a "Y" shaped frame, and after a suitable distance, pull in the net and cull the marketable shrimp while throwing other marine life overboard. The Bolivar cannery opened in 1923 and processed shrimp until the 1940s when better refrigeration and freezers made canning obsolete (Webb, 1952:2:145; Sullivan, 1988 as excerpted in Few, 1991:75).

By the mid-1940s bay shrimping expanded into the gulf waters when better nets were designed and boats discovered the rich off-shore brown shrimp beds in the deeper water. Post-World War II technology aided offshore shrimping with navigational equipment, diesel engines, and steel hulled boats. Bay shrimpers, on the other hand, harvest primarily the shallow-water white shrimp often used for bait (Sullivan, 1988 as excerpted in Few, 1991:75-76). During the 1950s and early 1960s, bay shrimpers often supplemented their income by harvesting oysters in the winter and sometimes these small family-harvesters also netted finfish (Sullivan, 1988 as excerpted in Few, 1991:80).

The Texas Shrimp Conservation Act was passed in 1959 and modified in 1963 which placed enforcement of the regulations under a single agency, the Texas Parks and Wildlife Commission. The act repeated and amended previous regulations and separated the inshore and offshore fisheries along with defining commercial activities such as shrimp house operations and bait dealers and required licenses. The act also recognized the growing importance of sport fishermen. Supplemental laws since then gave the TP&W the responsibility for conservation and fair usage of the freshwater and saltwater fisheries (Sullivan, 1988 as excerpted in Few, 1991:80-84).

Commercial Harvesters Versus Regulators and Sport Fishermen

The number of commercial fishermen in the bay tripled between the 1960's and the 1980s. Many Vietnamese fishermen relocated in Texas in the 1970s and the increased competition drew hostile reaction from local fishermen. Limited at first to inshore fishing because of their immigrant status and frugal by nature, the Vietnamese were resented for their success. Local fishermen, already suffering from the downturn in the economy, accused the newcomers of violating the law and also of being subsidized by the government (Sullivan, 1988 as excerpted in Few, 1991:85).

The arrival of the foreign fishermen coincided with changing state policies. The areas open to commercial offshore shrimping was restructured with the federal and state governments jousting for control. In 1981 a temporary moratorium was placed on issuing new bay and bait shrimp licenses (Sullivan, 1988 as excerpted in Few, 1991:85-87). Controversy arose between all factions—the various commercial fishermen of all kinds and sports fishermen due in part to the hard times. Those who made a living from fishing resented sportsmen while avocational fishermen considered commercial fishermen greedy and careless.

Competition for finfish intensified between 1977 and the mid-1980s when laws curtailed commercial fishing for redfish and speckled sea trout in the bay and near-shore coastal waters. Both species had been declining and the state action was in response to sportsmen who claimed the commercial fishermen were over harvesting. At first the regulations banned monofilament nets, forbade the use of nets, seines, and trotlines in the bay on weekends during the summer season, and limited the pounds of redfish that could be caught. But in 1981 the legislators banned all commercial harvesting of redfish and speckled sea trout with a $200 fine for each fish, a crippling blow to the industry. Many finfishermen turned to harvesting shrimp and oysters instead (Sullivan, 1988 as excerpted in Few, 1991:88-89). The 1981 ban on commercial harvesting seems to have had little short-term impact on sports fishermen's catches as of 1989 (Stanley 1989:n.p. Chapter 7[23]).

The bay harvesters have become sharp critics of the policies that allow environmental harm and the gradual loss of habitat. They complain that they have little power to alter the course of residential and industrial developers, oil and gas exploration and drilling, marine commerce, and shell dredging. Besides industrial and human waste, there are oil spills, leakage, and bilge pumping that damage the estuaries and marsh nurseries. They also note the dams on the Trinity River that cause changes in the salinity which in turn affects marine life (Sullivan, 1988 as excerpted in Few, 1991:91).

There are other agricultural and industrial practices that affect the fisheries. Pesticide run-off is a concern of the commercial harvesters, especially the now-banned DDT that was used on the rice fields in Chambers County in the 1950s and which settled in the bay waters and may be imbedded in the silt. Some fishes adapted but developed visible tumors; these continued to go to market until the 1960s when the TP&W issued warnings (Becker, 1991). An additional concern for some people is the heated water discharges into the bay at the various Houston Lighting and Power Company plants. While the power company cools the water used in generating electricity before returning it to the bay, some accidental discharges have caused complaints from environmentalists (Roof, 1991). Nevertheless, research to date does not show significant long-term detrimental effects from these discharges. In the short run, these heated water areas attract recreational fishermen.

Two Corps of Engineer projects also have upset fishermen. The plan to dam the lower Trinity River below Wallisville, known as the Wallisville Lake Project, began in 1952 to provide water for Chambers County rice farmers and improve navigation. To get wider support, the plan was enlarged to supply water for municipalities plus industrial and agricultural interests in Liberty, Harris, Jefferson, and Galveston counties. The Corps also promised recreational parks with boat ramps. Land owners whose acreage would be flooded objected in 1960 but failed to stop the initial work which began in 1966. The passage of the National Environmental Policy Act in 1967 forced the Corps to undertake environmental impact studies. Environmental groups and shrimpers joined the

landowners in protesting, and in 1973 a district judge issued an injunction to stop work. The Corps appealed the decision and the court ordered a second environmental impact study in 1974. Even though the dam was 75% completed, the Corps reconsidered in 1977 and recommended that a smaller reservoir be built and ordered an archeological and historical study made of the new area to be flooded. The revised proposal emerged in 1983 and the Corps asked that the injunction be lifted. The matter dragged on for three more years when the judge refused (Henson & Ladd, 1988:117-118). However, the decision was overturned in 1987 and the modified project is again underway. Critics still insist that the dam will negatively impact the amount of fresh water entering Trinity Bay which, they say, will ultimately damage the nurseries.

The second project is the 1987 plan to deepen the Houston Ship Channel by 10 feet and widen it 200 feet beyond its present width through the bay. Fishermen believe that dredging the silt which is contaminated with toxins and heavy metals will increase turbidity and harm marine life. Where to deposit the dredged spoil is a vital issue. The first EIS report in 1988 was not satisfactory and a second one was ordered. A "beneficial uses" plan to use dredged material in strategic sites is part of the studies being carried out to prepare the new EIS.

The Economic Importance of the Fisheries

The economic impact of the fisheries varies from year to year because the harvest can be affected by such uncontrollable phenomena as severe cold and flooding plus harmful spills of petroleum, petrochemicals or other products. A 1985 report showed that the bay fisheries produced 1.2 million pounds of finfish, 5 million pounds of bay shrimp and possibly 12 million pounds of gulf shrimp, 1.5 million pounds of crabs, and 1.3 million pounds of shucked oysters during the year. Not only do the fishermen depend on the bay for a livelihood, but a variety of other economic enterprises ranging from bait shops to restaurants can be affected by the health of harvests. As a result, suspected threats to the bay's well-being are monitored carefully. For example, the U. S. Fish and Wildlife Service estimated in 1985 that the proposed dredging in Galveston Bay might decrease the oyster harvest from 60 to 80 percent (Grissom, 10-8-85).

Volunteer Efforts to Monitor the Bay

Volunteer groups also observe conditions in the bay. The Galveston Bay Conservation and Preservation Association is a long-time watch-dog organization made up mostly of residents from the bay area. The Galveston Bay Foundation, established in 1987, is a non-profit organization open to anyone interested in preserving and enhancing the bay. Its membership includes representatives from sport and commercial fishing, government agencies, recreational interests, business and shipping interests, and environmental groups who want to identify problems and seek solutions. Its focus is on education,

conservation, research, and advocacy. The GBF and other local interests were instrumental in establishing the Galveston Bay National Estuary Program; state and federal program efforts of this type were established in 1987 by the Federal Water Quality Act to assess trends in water quality, natural resources, and use of estuaries.

The Galveston Bay Foundation has developed an active volunteer monitoring program. Since 1987, GBF members have reviewed applications for permits from the US Corps of Engineers that might affect the bay's wetlands. GBF citizen monitors measure water quality and record observations of general conditions using procedures that have been approved by TNRCC and EPA so that the agencies can accept and use the monitoring data. The GBF program is affiliated with the statewide Texas Watch Program of the Texas Natural Resource Conservation Commission. At the end of 1992, GBF had 27 citizen monitors working at 21 sites around the bay (Shead, n.d). Another Galveston Bay monitoring effort, called Bay Watch, includes many professional fishing guides and others who are on the water a great deal. Texas A&M University's Marine Department at Galveston trains the Bay Watch volunteers to take water samples, note spills and fish kills, and report illegal trash discards and fishing practices such as the use of gill nets (Grissom, 4-17-91).

The dire warnings in the 1970s that Galveston Bay was dying have gradually brought more public concern and created demands for reforms to improve water quality. Environmental regulations and changes in industry practices have resulted in some success stories. There is more interest now in preserving the fisheries for both recreational and commercial use. Efforts to increase public awareness of the fragile nature of the bay and the importance of its marine life are on-going.